

EMPOWERING DIGITAL TECHNOLOGIES FOR SMALL AND MEDIUM-SIZED ENTERPRISE RAPID INTERNATIONALIZATION

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Abstract

Embracing digital technologies empowers small and medium-sized enterprises for rapid internationalization. Although the phenomenon of small and medium-sized enterprises has received attention in the international entrepreneurship field, there is still a lack of knowledge concerning the digital technologies that empower small and medium-sized enterprises for rapid internationalization. This paper suggests propositions based on a conceptual framework to emphasise digital technologies to enable rapid internationalization among small and medium-sized enterprises. The conceptual highlights leading to rapid and improved performance of internationalization among small and medium-sized enterprises are enhanced using digital technologies. The implications and future direction of the study are addressed.

Keywords: Digital technologies, small and medium-sized enterprises, rapid internationalization, performance

1. Introduction

Digital technologies are viewed as tools that advance and shape the traditional way of communication between people. In particular, digital technologies refer to the digital application and infrastructure used in the economy, business and society that shape the way of life [10]. For business, firms who adopt digital technologies in their business model transform and change the way to create more value for firms [8]. Adopting digital technologies in business benefits firms to enhance interactions for existing customers, attract new customers and motivates firms to come up with new ways of product development and marketing strategies [4,14].

Current literature has concentrated on the adoption of digital technology in large organisations, with only a few studies focusing on small and medium-sized enterprises (SME)s [5]. Small and medium-sized enterprises, on the other hand, are widely acknowledged as important contributors to economic growth in many countries [4]. Indeed, digital technologies promote value creation and customer engagement, which are critical success factors for SMEs [3]. Furthermore, utilising these technologies necessitates SMEs to enhance their competitive advantage [9].

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2. Conceptual Background

This paper proposes a conceptual framework in Figure 1 to explain empowering digital technologies for rapid internationalization among small and medium-sized enterprises. For this purpose, the authors have identified internal capabilities as the resources and the external environment as the opportunities for small and medium-sized enterprises to develop and use digital technologies towards rapid internationalization.

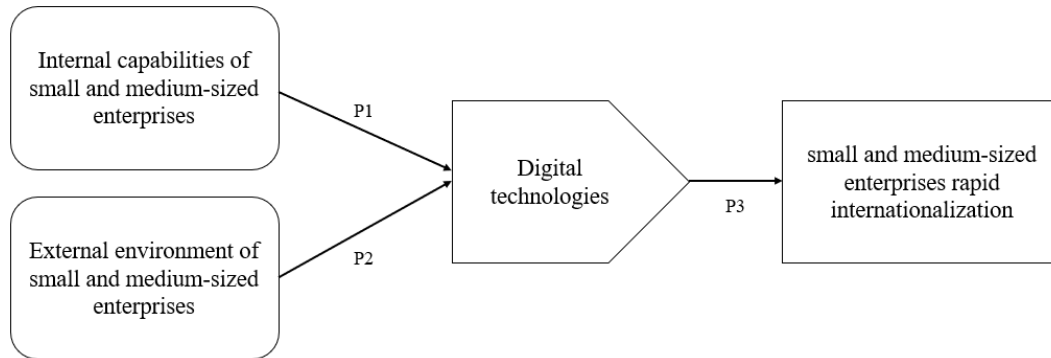


Figure 1. A framework of the empowering digital technologies for small and medium-sized enterprises rapid internationalization

Based on the overview of the conceptual framework of small and medium-sized enterprises, this paper has framed three propositions as follows:

2.1. Proposition 1

SMEs with internal capabilities are more likely to leverage digital technologies for rapid internationalization.

2.2. Proposition 2

SMEs with highly perceived concepts of the external environment as opportunities are more likely to support digital technologies for rapid internationalization.

2.3. Proposition 3

SMEs employing highly empowering digital technologies are likely to achieve rapid internationalization.

2.1.1. SMEs with internal capabilities are more likely to leverage digital technologies for rapid internationalization: Internal capabilities or intangible assets are the internal resources for competitive advantage for small and medium-sized enterprises [6]. Small and medium-sized enterprises suffer from limited resources especially financial and knowledge, but such unique internal capabilities can help small and medium-sized enterprises to overcome their limitations [3].

Internal capabilities for small and medium-sized enterprises include the business experience and exposure of entrepreneurs, their experiential knowledge, business ideas, innovation, financial accessibility and networking capability [2, 15]. Small and medium-sized enterprises may use digital technologies as strategic networking to develop and strengthen their internal capabilities and perform in the international market [11].

2.2.1. SMEs with highly perceived concepts of the external environment as opportunities are more likely to support digital technologies for rapid internationalization: The external environment describes macro environmental factors for small and medium-sized enterprises that offer both opportunities and challenges [7]. It allows small and medium-sized enterprises to generate new ideas and to develop strategies, but it also leads to complexity given that the small and medium-sized enterprises have to cope with barriers and challenges for internationalization [1,7,15]. The external environment relates with market and industry, political and legal factors, social and cultural context, the global economic landscape, domestic and international institutional environments and technological advancement [6, 13]. The small and medium-sized enterprises who perceive the external environment as an opportunity are able to solve complexity and pursue their goals in the international market through advances in digital technologies [12].

2.3.1. SMEs employing highly empowering digital technologies are likely to achieve rapid internationalization: The Internet of Things (IoT), Industry 4.0, e-commerce, cloud computing, advanced robotics, social media, CRM, ERP, broadband, website and business intelligence systems are examples of digital technologies that may provide a wide range of implications for businesses, society, policy makers and consumers [10]. Digital technologies provide business model innovation for small and medium-sized enterprises in terms of product and services offered as well as business operations and processes [8]. Small and medium-sized enterprises can adopt digital technologies for function as business interactive platform social networks, servers, databases and storage, enhanced sales and marketing as well as to deliver services that affect the value and performance of business for competitive advantage [14].

The advancement of digital technologies has facilitated internationalization among the small and medium-sized enterprises. Digital technologies make it easier for small and medium-sized enterprises to penetrate foreign markets to advance in communications, international marketing and reduce business transaction costs [9]. Digital technologies allow small and medium-sized enterprises to obtain market knowledge and business advice to support different activities and create value in business for internationalization [7].

3. Suggestion for future research

There are several suggestions for future avenues to demonstrate and explain the empowerment of digital technologies for the rapid internationalization of small and medium-sized enterprises. From the theoretical aspects, international entrepreneurship theories are the best fit to describe the rapid internationalization

pathways among small and medium-sized enterprises through utilization of digital technologies. The internationalization theories of born global, international new ventures, electric paradigms, transaction cost theories, are among the top choices of theories to build a theoretical ground in the literature. Other theories such as resource-based view (RBV), institutional, network perspective, product life cycle, diffusion of innovation, theory of planned behaviour (TPB), marketing, service exchange, value co-creation and effectuation may complement to extend the literature. In addition, the Uppsala model, technology acceptance model (TAM) or business model may integrate with theories for further studies to analyze critical factors related to the digital technologies and the rapid internationalization of small and medium-sized enterprises.

In designing methodologies for future studies, researchers could employ quantitative methods to measure the usage of such digital technologies that could influence rapid internationalization. The relationship of internal capabilities and the external environment with digital technologies as mediators or moderators could be possible to be examined. Future studies of the qualitative approach may be conducted to explore for elements of capabilities as well as the factors of the external environment through leveraging digital technologies for a deeper understanding. Studies of the rapid internationalization process specifically in utilizing digital technologies may also inspire further research. Diversified samples should include a wide range of different contexts, industries and small and medium-sized enterprise characteristics for generalizability of the findings.

4. Implications for practitioners and policy makers

This conceptual paper has provided some interesting insights of internationalization of small and medium-sized enterprises through empowering digital technologies. The conceptual framework proposed is relevant for entrepreneurs of small and medium-sized enterprises, policy makers, technology providers and consultants. The entrepreneurs of small and medium-sized enterprises particularly those who have intention to internationalize rapidly may use the concept to develop a business model through adaptation of digital technologies. They will be able to identify the internal capabilities and external environment much better to influence their rapid internationalization. The policy makers, especially those in the emerging and developing countries, may need to develop and revise digital technology facilities, training, incentives and programmes. The conceptual framework can serve as a demonstration platform for technology providers and consultants to present to small and medium-sized enterprises to execute rapid internationalization.

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References

- [1] Ayob, A. H., & Senik, Z. C. (2015). The role of competitive strategies on export market selection by SMEs in an emerging economy. *International Journal of Business and Globalisation*, 14, 2, 208–225.
- [2] Cavusgil, S. T., & Knight, G. (2015). The born global firm : An entrepreneurial and capabilities perspective on early and rapid internationalization. *Journal of International Business Studies*, 46, 1, 3–16.
- [3] Cenamor, J., Parida, V., & Wincent, J. (2019). How entrepreneurial SMEs compete through digital platforms : The roles of digital platform capability, network capability and ambidexterity. *Journal of Business Research*, 100, 12, 196–206.
- [4] Hervé, A., Schmitt, C., & Baldegger, R. (2020). Internationalization and Digitalization : Applying digital technologies to the internationalization process of small and medium-sized enterprises. *Technology Innovation Management Review*, 10, 7.
- [5] Hervé, A., Schmitt, C., Baldegger, R., & Schwab, K. (2020). Digitalization , Entrepreneurial Orientation and Internationalization of Micro, Small and Medium-Sized Enterprises. *Technology Innovation Management Review*, 10, 4.
- [6] Ismail, N. A., & Kuivalainen, O. (2015). The effect of internal capabilities and external environment on small- and medium-sized enterprises' international performance and the role of the foreign market scope: The case of Malaysian halal food industry. *Journal of International Entrepreneurship*, 13, 4, 418–451.
- [7] Jean, R. B., & Kim, D. (2019). Internet and SMEs ' internationalization : The role of platform and website. *Journal of International Management*, March.
- [8] Lee, Y., Falahat, M., & Sia, B. (2019). Impact of Digitalization on the Speed of Internationalization. *International Business Research*, 12(4), 1–11.
- [9] Lee, Y. Y., & Falahat, M. (2019). The Impact of Digitalization and Resources on Gaining Competitive Advantage in International Markets : The Mediating Role of Marketing , Innovation and Learning Capabilities. *Technology Innovation Management Review*, 9(11), 28–38.
- [10] Li, A. Q., & Found, P. (2017). Towards sustainability : PSS , digital technology and value co-creation. *Procedia CIRP*, 64, 79–84.
- [11] Ndubuisi, J., Ndubuisi, D., & Ramos-hidalgo, E. (2020). Effects of innovation strategies on export performance : New empirical evidence from developing market firms. *Technological Forecasting & Social Change*, 158, 5, 120-167.
- [12] Neubert, M. (2018). The Impact of Digitalization on the Speed of Internationalization of Lean Global Startups. *Technology Innovation Management Review*, 8, 5, 44–55.
- [13] Oparaocha, G. O. (2015). SMEs and international entrepreneurship: An institutional network perspective. *International Business Review*.
- [14] Ramdani, B., Raja, S., & Kayumova, M. (2021). Digital innovation in SMEs: a systematic review, synthesis and research agenda. *Information Technology for Development*, 0, 0, 1–25.
- [15] Wadhwa, P., McCormick, M., & Musteen, M. (2017). Technological innovation among internationality active SMEs in the Czech economy Role of human and social capital of CEO. *European Business Review*, 29, 2, 164–180.